

CLAIMS

WE CLAIM:

1. A method comprising:
mounting a window above an active area on a first
5 surface of a sensor device, said sensor device
comprising a bond pad on said first surface;
mounting a step up ring above a noncritical region
of said first surface between said bond pad and said
active area; and
10 electrically connecting a trace on said step up
ring to said bond pad.
2. The method of Claim 1 wherein said mounting a
step up ring comprises directly mounting a first
15 surface of said step up ring to said noncritical
region.
3. The method of Claim 1 wherein said step up
ring is mounted around said window.
- 20 4. The method of Claim 3 wherein said step up
ring comprises a central aperture, said window being
located in or adjacent said central aperture.
- 25 5. The method of Claim 1 wherein said sensor
device is one of a plurality of sensor devices
integrally connected together in a wafer.
- 30 6. The method of Claim 5 wherein said step up
ring is one of plurality of step up rings integrally
connected together in a sheet, said method further
comprising mounting a first surface of said sheet to a
first surface of said wafer.
- 35 7. The method of Claim 6 further comprising

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10. The method of Claim 1 wherein said window is mounted above said active area by a window support.

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16. The method of Claim 15 wherein said active area is responsive to radiation.

5 17. A method comprising:
mounting a window above an active area on a first surface of a sensor device; and
directly attaching a first surface of a step up ring to said first surface of said sensor device, said
10 step up ring being mounted around said window.

18. The method of Claim 17 wherein said directly attaching comprises directly attaching said first surface of said step up ring to said first surface of
15 said sensor device with adhesive.

19. The method of Claim 17 wherein said sensor device comprises a bond pad on said first surface of said sensor device, a noncritical region of said first
20 surface of said sensor device being between said active area and said bond pad, said directly attaching comprises directly attaching said first surface of said step up ring to said noncritical region.

20. The method of Claim 19 further comprising electrically connecting said bond pad to an electrically conductive trace on a second surface of said step up ring.

21. The method of Claim 20 wherein said electrically connecting comprises forming a bond wire between said bond pad and said trace.

22. The method of Claim 20 further comprising
35 forming an interconnection ball on said trace.

23. The method of Claim 17 wherein said sensor device is one of a plurality of sensor devices integrally connected together in a wafer.

24. The method of Claim 23 wherein said step up ring is one of plurality of step up rings integrally connected together in a sheet, said method further comprising mounting a first surface of said sheet to a first surface of said wafer.

25. The method of Claim 23 further comprising
simulating said wafer.

26. A method comprising:

directly attaching a first surface of a step up ring to a second surface of said window support layer, said step up ring being mounted around said window.

27. The method of Claim 26 wherein said image sensor comprises a first surface, said active area and a bond pad of said image sensor being on said first surface of said image sensor, a noncritical region of said first surface of said image sensor being between said active area and said bond pad, said step up ring being mounted above said noncritical region.

28. The method of Claim 27 further comprising electrically connecting said bond pad to an electrically conductive trace on a second surface of
35 said step up ring.

